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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

OSMAN, RAMY M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/611,292	Applicant(s) GOMES DE OLIVEIRA, MARCELO	
	Examiner RAMY M. OSMAN	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is responsive to amendment filed on September 11, 2008, where Applicant amended claims 1-3,8,13,18,21. Claims 1-15 and 17-21 remain pending.

Response to Arguments

2. Previous 101 rejections are withdrawn in light of amendments.
3. Applicant's arguments filed 9/11/2008 have been fully considered but they are not persuasive.
4. Applicant argues that the claimed expression is not taught by Ju.

In reply, Applicants use of the claimed expression is old and well known in the art.

Applicants specification uses the following equation (the equation in the claims are incorrect, see objection below), to determine if more channels can be supported:

$$\text{NbChannels} = \text{CurrentNbChannels} \times [((\text{MaxCPUUtil})/(\text{CurrentCPUUtil})) - 1]$$

In its simplest of interpretations, the equation is saying nothing more than “if current CPU utilization is equal to the maximum possible CPU utilization, then the CPU cannot handle any more load”. If you plug $\text{MaxCPUUtil} = 100\%$ and $\text{CurrentCPUUtil} = 100\%$, into the above equation, then the result is the following:

$$\text{NbChannels} = \text{CurrentNbChannels} \times [((100\%)/(100\%)) - 1]$$

$$\text{NbChannels} = \text{CurrentNbChannels} \times [(1) - 1]$$

$$\text{NbChannels} = \text{CurrentNbChannels} \times [0]$$

$$\text{NbChannels} = 0$$

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In other words, if $\text{MaxCPU} = \text{CurrentCPU}$ then the CPU cannot handle any more load (i.e. NbChannels is zero). Similarly, if Current CPUUtil is less than the maximum, then the equation simply tells you how much more load can be handled based on the Max/Current CPU ratio.

This is actually a standard equation that is used to make a determination as to how many additional elements are possible in light of a current number of elements and a maximum capacity. This type of standard equation is general knowledge and can be applied to any real world setting where one seeks to quantitatively make a determination as to whether a situation can handle more elements.

For example, in a highway traffic setting, one can calculate how many additional cars a particular lane can handle in light of the current number of cars, the maximum lane utilization (i.e. number of cars allowed) for a particular lane, and the current lane utilization (i.e. number of current) cars for the particular lane. The calculation would look like the following:

$$\# \text{of additional cars can be handled} = (\text{current \# of cars}) \times [((\text{max utilization of lane}) / (\text{current utilization of lane})) - 1]$$

in shorthand:

$$\text{NbCars} = \text{CurrentNbCars} \times [((\text{MaxCarUtil}) / (\text{CurrentCarUtil})) - 1] \quad ,$$

which is the same exact equation used by Applicant to compute the additional number of participants for a processor. Another example can be how many more additional connections a network can handle based on maximum bandwidth capacity and current bandwidth. The examples are limitless. And the results will always be the same: if Current equals Maximum, then you cannot handle any more.

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This equation is not a novel approach in regards to determining how many additional elements can be added to a situation. It is obvious for one of ordinary skill in the art to modify Ju by using this standard equation to make a determination as to how many additional participants can be added for the purpose of preventing an overload of any single processor. It is obvious to use this type of standard equation in any other real world setting where one seeks to quantitatively make a determination as to whether is feasible to add elements into a situation in light of the current number of elements and the situational capacity.

Claim Objections

5. Claims 1,8,13,18,21 objected to because of the following informalities: The mentioned equation in the claims is inconsistent with the mentioned equation in ¶ 31 of the PG Publication of the instant application. The claim equation is missing the “-1” expression/operand. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-3,8,12,17,18,21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claims 1,8,13,18,21, “NbChannels” is undefined and indefinite.

9. Regarding claim 2, “MP” is undefined and indefinite.

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10. Regarding claim 2, “*for calculation purposes*” is unclear. It appears that Applicant may have intended this claim to mean substituting a 1 in place of an actual 0 value for one of the mentioned variables for purposes of avoiding an error calculation (or avoiding an inconclusive calculation). However, the language of “*for calculation purposes*” is itself inconclusive and indefinite.

11. Regarding claims 3,12,17, it is unclear whether “*a value representative of a number of conference participants that may be supported by said multiprocessor*” is a separate value which is different from “*NbChannels*” or “*CurrentNbChannels*”. If it is not different from both of these then it is unclear how it can be determined “*before*” reaching a current CPU utilization. It is unclear if Applicant intends it to mean “calculating a value before the calculated value is reached” which might make sense if reworded, or means “calculating a value before calculating the same value” which seems like an infinite recursion and is indefinite. It is also unclear if Applicant actually intended the “*before... current CPU utilization...*” to be “*before... maximum CPU utilization*”.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 1-15 and 17-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Ju et al (US Patent No 6,744,741).**

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14. In reference to claim 1, Ju teaches a method for selecting a media processor to host a new conference, comprising:

receiving an indication of a need for a media processor for a new conference (column 5 lines 31-45);

determining, for each of a plurality of media processors under control of a multipoint controller, a number of additional participants that can be supported by each of said plurality of media processors based on a current number of conference participants on each of said plurality of media processors and based on a current CPU utilization percentage for each of said plurality of media processors (column 5 lines 49 – column 6 line 30, column 7 lines 50-67 and column 8 line 54 – column 9 line 15, Ju discloses making a determination as to whether additional participants can be added to a processor based on a current processor utilization in light of the threshold (i.e. maximum) utilization of that processor); and

determining one of said plurality of media processors to host said new conference based, at least in part, on said number of additional participants that each of said plurality of media processors can support (column 6 lines 6-30 and column 7 lines 50-65)

Although Ju has been shown to disclose determining whether a processor can handle more load based on current and maximum utilization, Ju does not teach this in equation form. Ju fails to explicitly teach the claimed expression of :

$$\text{NbChannels} = \text{CurrentNbChannels} \times [(\text{MaxCPUUtil})/(\text{CurrentCPUUtil})]$$

However, the claimed expression is old and well known in the art. This is actually a standard equation that is used to make a determination as to how may additional elements are

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possible in light of a current number of elements and a maximum capacity. This type of standard equation is general knowledge and can be applied to any real world setting where one seeks to quantitatively make a determination as to whether a situation can handle more elements.

For example, in a highway traffic setting, one can calculate how many additional cars a particular lane can handle in light of the current number of cars, the maximum lane utilization (i.e. number of cars allowed) for a particular lane, and the current lane utilization (i.e. number of current) cars for the particular lane. The calculation would look like the following:

$$\text{\#of additional cars can be handled} = (\text{current \# of cars}) \times [((\text{max utilization of lane})/(\text{current utilization of lane})) - 1]$$

in shorthand:

$$\text{NbCars} = \text{CurrentNbCars} \times [((\text{MaxCarUtil})/(\text{CurrentCarUtil})) - 1] ,$$

which is the same exact equation used by Applicant to compute the additional number of participants for a processor. Another example can be how many more additional connections a network can handle based on maximum bandwidth and current bandwidth. The examples are limitless. And the results will always be the same: if Current equals Maximum, then you cannot handle any more.

It is obvious for one of ordinary skill in the art to modify Ju by using this standard equation to make a determination as to how many additional participants can be added for the purpose of preventing an overload of any single processor. It is also obvious to use this type of standard equation in any other real world setting where one seeks to quantitatively make a determination as to whether is feasible to add elements into a situation in light of the current number of elements and the situational capacity. The motivation for using this type of equation

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is to enable a computer to automate this type of determination and then to allow or deny any additional load based upon the result of the equation.

15. In reference to claim 2, Ju teaches the method of claim 1. Ju fails to explicitly teach wherein a CurrentNBChannels value of zero for an MP is set to one for calculation purposes and a CurrentCPUUtil value of zero is set to one for calculation purposes. However, it is old and well known in the art that in a computer arithmetic environment, subtracting from zero (if $\text{CurrentNBChannels} = 0$) and also dividing by zero (if $\text{CurrentCPUUtil} = 0$), will result in a negative and undefined error result respectively. These types of results reflect undefined results in real world examples and result in computational errors in computer arithmetic environments. It is therefore obvious for one of ordinary skill in the art to modify Ju by substituting a 1 in place of an actual 0 value for one of the mentioned variables for purposes of avoiding an error calculation (or avoiding an inconclusive calculation), and also a program termination error.

16. In reference to claim 3, Ju teaches the method of claim 1, wherein said determining, for each of a plurality of media processors under control of a multipoint controller, a number of additional participants that can be supported, includes determining a value representative of a number of conference participants that may be supported by said multipoint processor before reaching the value representative of a current CPU utilization percentage for each of said plurality of media processors (column 6 lines 6-30).

17. In reference to claim 4, Ju teaches the method of claim 1, wherein said receiving an indication of a need for a media processor for a new conference includes receiving a request for allocation of a media processor for said new conference (column 5 lines 31-45).

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18. In reference to claim 5, Ju teaches the method of claim 1, further comprising: providing data indicative of said one of said plurality of media processors (column 5 lines 62 – column 6 line 15).

19. In reference to claim 6, Ju teaches the method of claim 1, further comprising: allocating said one of said plurality of media processors to host said new conference (column 6 lines 30-50).

20. In reference to claim 7, Ju teaches the method of claim 1, further comprising: determining a value representative of a maximum CPU utilization percentage associated with each of said plurality of media processors (column 5 lines 49-61, column 6 lines 6-16 and column 7 lines 50-65).

21. In reference to claim 8, Ju teaches a method for selecting a media processor to host a new conference, comprising:

receiving an indication of a need for a media processor for a new conference (column 5 lines 31-45);

determining, for each of a plurality of media processors under the control of a multipoint controller, a current number of conference participants and a current CPU utilization (column 5 lines 49 – column 6 line 30); and

determining one of said plurality of media processors to host said new conference based, at least in part, on said current number of conference participants and current CPU utilization for each of said plurality of media processors and based on a current CPU utilization percentage for each of said plurality of media processors (column 5 lines 49-61, column 6 lines 6-30 and column 7 lines 50-65).

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22. In reference to claim 9, Ju teaches the method of claim 8, wherein said determining one of said plurality of media processors to host said new conference includes selecting one of said plurality of media processors based on each of said plurality of media processors ability to support participants in said new conference (column 6 lines 1-60).

23. In reference to claim 10, Ju teaches the method of claim 8, wherein said determining one of said plurality of media processors to host said new conference includes selecting one of said plurality of media processors that can support a highest number of participants in said new conference (column 6 lines 1-60).

24. In reference to claim 11, Ju teaches the method of claim 8, wherein said determining one of said plurality of media processors to host said new conference includes determining a number of new participants that can be supported by each of said plurality of media processors (column 6 lines 27-47 and column 7 lines 50-67).

25. In reference to claim 12, Ju teaches the method of claim 11, wherein said determining a number of new participants that can be supported by each of said plurality of media processors includes determining a value representative of a number of conference participants that may be supported by the multipoint processor before reaching the value representative of a current CPU utilization percentage for each of said plurality of media processors (column 6 lines 5-30).

26. In reference to claims 13-15,17-20, claims 13-15,17-20 are system claims that correspond to the method claims of claims 1-12. Therefore, claims 13-15,17-20 are rejected based upon the same rationale as used to reject claims 1-12.

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27. In reference to claim 21, claim 21 is an article of manufacture claims that corresponds to the method of claim 1. Therefore, claim 21 is rejected based upon the same rationale as used to reject claim 1.

Conclusion

28. The above rejections are based upon the broadest reasonable interpretation of the claims. Applicant is advised that the specified citations of the relied upon prior art, in the above rejections, are only representative of the teachings of the prior art, and that any other supportive sections within the entirety of the reference (including any figures, incorporation by references, claims and/or priority documents) is implied as being applied to teach the scope of the claims.

29. Applicant may not introduce any new matter to the claims or to the specification. For any subsequent response that contains new/amended claims, Applicant is required to cite its corresponding support in the specification. (See MPEP chapter 2163.03 section (I.) and chapter 2163.04 section (I.) and chapter 2163.06)

30. In formulating a response/amendment, Applicant is encouraged to take into consideration the prior art made of record but not relied upon, as it is considered pertinent to applicant's disclosure. See attached Form 892.

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMY M. OSMAN whose telephone number is (571)272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ramy M Osman/
Primary Examiner (Temp), Art Unit 2457

November 20, 2008